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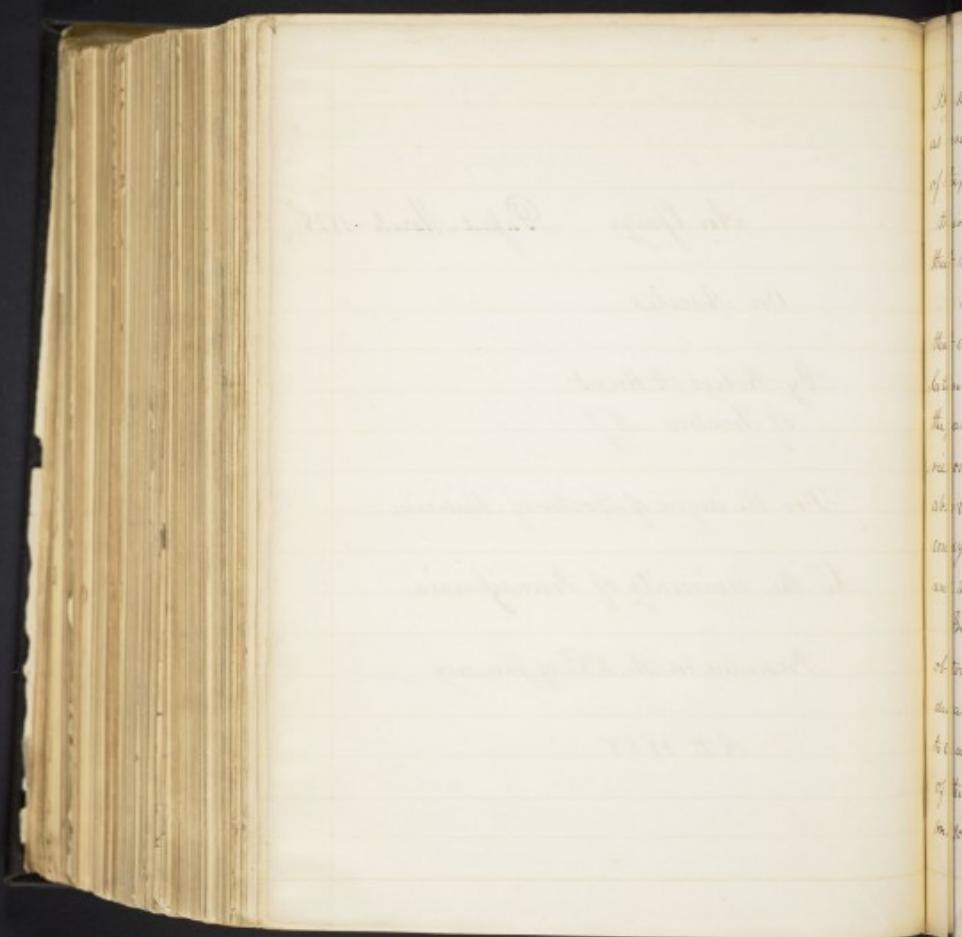
On Ascites

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For the degree of Doctor of Medicine  
In the University of Pennsylvania

Presented on the 23<sup>d</sup> of January

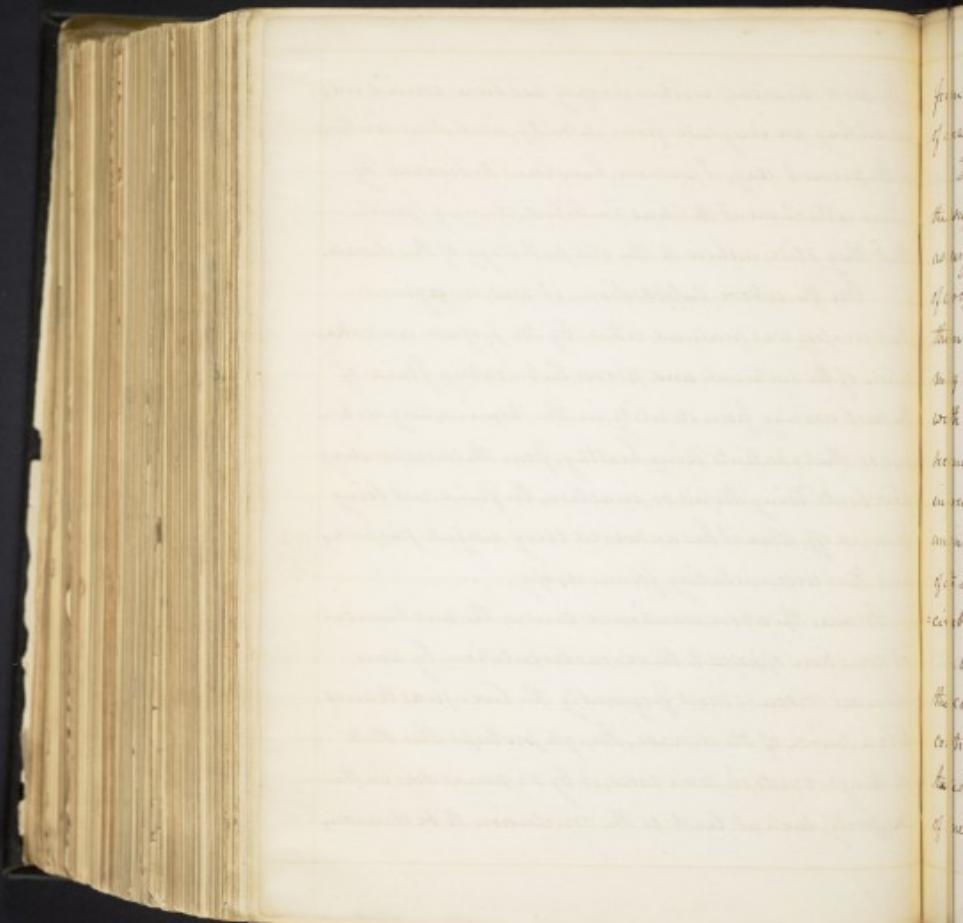
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By most medical writers drophy has been considered, as arising in every case from debility, and some authors of the present day, I presume, have been so engrossed by their attachment to ideas imbibed during youth, that they still adhere to the old pathology of this disease.

On the above supposition, it was imagined that drophy was produced either by too profuse an exhalation of the natural and proper lubricating fluid of the part, arising from debility in the terminating arteries, or that exhalents being healthy, from the corresponding absorbents being torpid or inactive, the fluid not being conveyed off, when it has answered every useful purpose, and thus accumulating forms drophy.

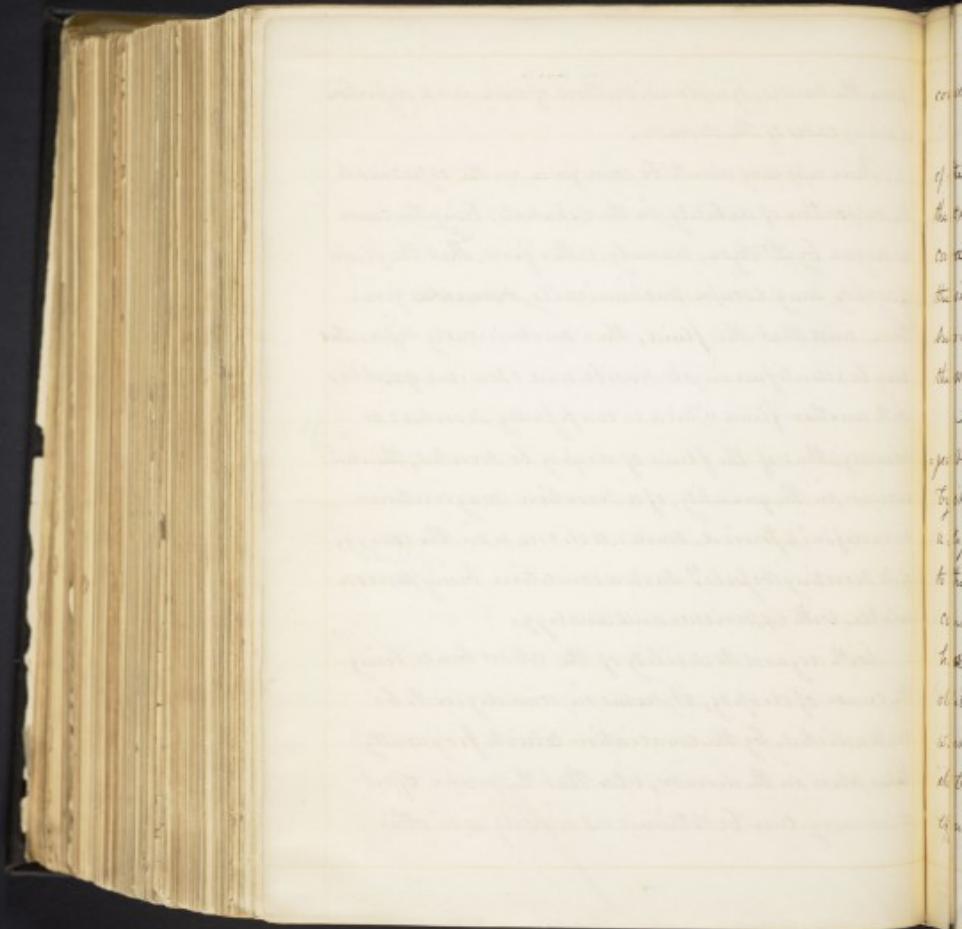
Besides the above mentioned cause, the mechanical obstruction opposed to the venous circulation, by some diseased viscera (most frequently the liver) was believed to be a source of the disease, though perhaps this state of things exists in some cases, it by no means does in the majority, such at least is the conclusion to be drawn,



from the causes, symptoms, method of cure, and direction  
of many cases of the disease.

There appears also to be some force in the objections to  
the supposition of debility in the exhalents, being the cause  
as urged by Dr. Ayr, namely, either first, That the fluid  
of dropsy may escape mechanically, ~~separated~~ from  
them, and that the fluid, thus mechanically separated  
may be identified in its sensible and chemical qualities  
with another fluid which is conspicuously secreted: or  
secondly, that if the fluid of dropsy be secreted, then an  
increase in the quantity, of a secretion may continue  
an indefinite period, under a decrease in the quantity,  
of its secreting vessels? Such a condition being incon-  
ceivable, with experience and analogy.

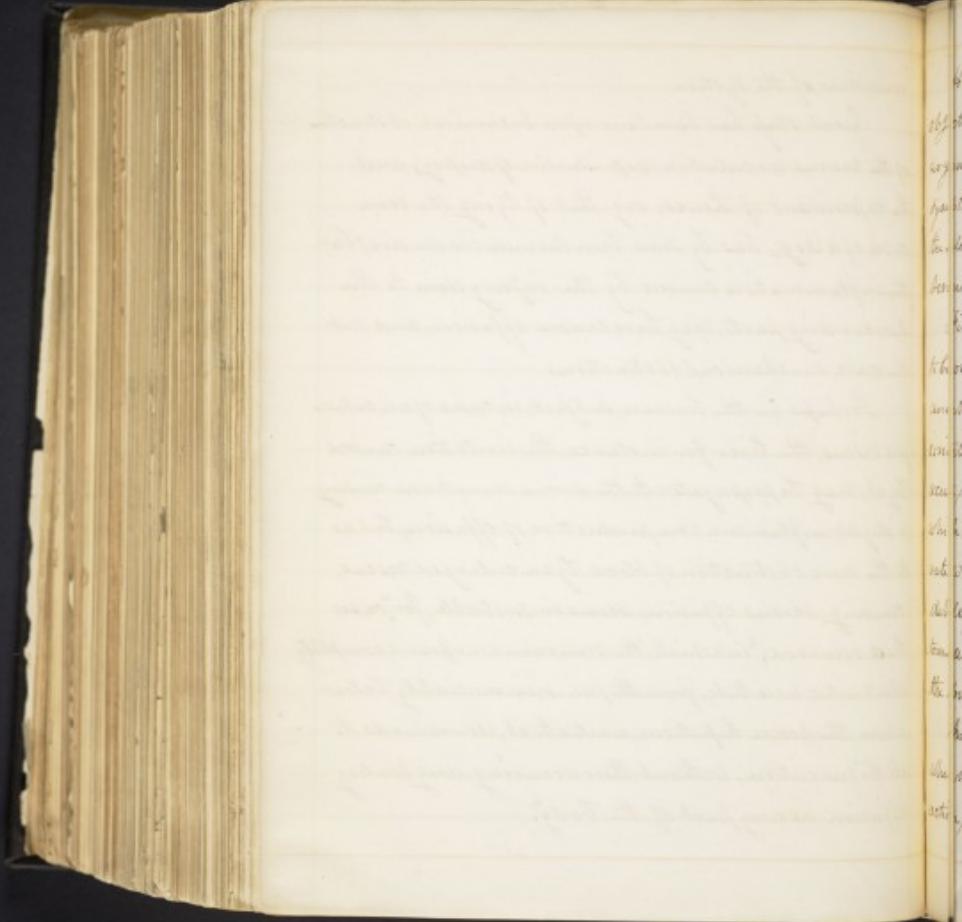
With regard to debility of the absorcents being  
the cause of dropsy, it seems in some degree to be  
contradicted, by the emaciation which frequently  
takes place in the disease; also that the specific effect  
of mercury can be obtained as readily as in other



conditions of the system.

Great stress has been laid upon mechanical obstruction of the venous circulation, as productive of dropsy; and the experiment of Lower, viz. that of tying the vena cava of a dog, has by some been deemed conclusive; but the inflammation caused by the injury done to the surrounding parts may have caused effusion, and not the mere mechanical obstruction:

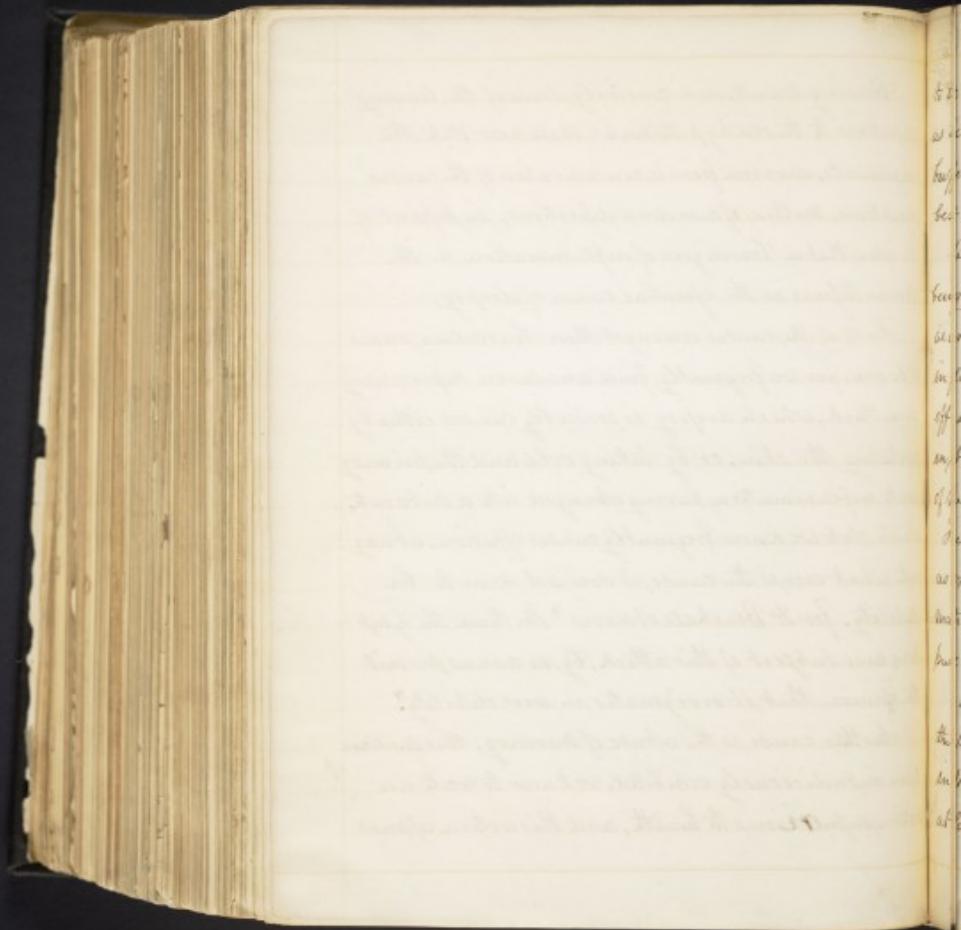
Perhaps in the human subject, in cases of an enlarged viscous, the liver for instance, the irritation caused by it, may be propagated to the serous membrane causing a slight inflammation productive of effusion, but as to the mere obstruction of blood by an enlarged viscous, causing serous effusion, seems improbable, for "cases had occurred, in which the vena cava was found completely obliterated as a tube, from the point immediately below where the vena hepatica united to it, downwards to its bifurcation, without there occurring any watery effusion in any part of the body".



Having mentioned cursorily some of the leading objections to the old hypothesis, we shall now state the arguments, derived from a consideration of the causes, symptoms, method of cure, and dejections, in support of the idea that a low degree of inflammation in the womb uterine is the operative cause of dropsy.

First of the causes amongst these Scurlatena seems to be one, for we frequently find anaeracea supervening an attack, which dropsy is probably caused either by irritating the skin, or by taking cold and the primary acute inflammation having changed into a subacute, which state we know frequently causes effusion, at any rate what ever is the cause, it does not seem to be debility. For Dr Blackall observes "The time the symptoms, and subject of this attack, by no means permit the opinion that it originates in mere debility."

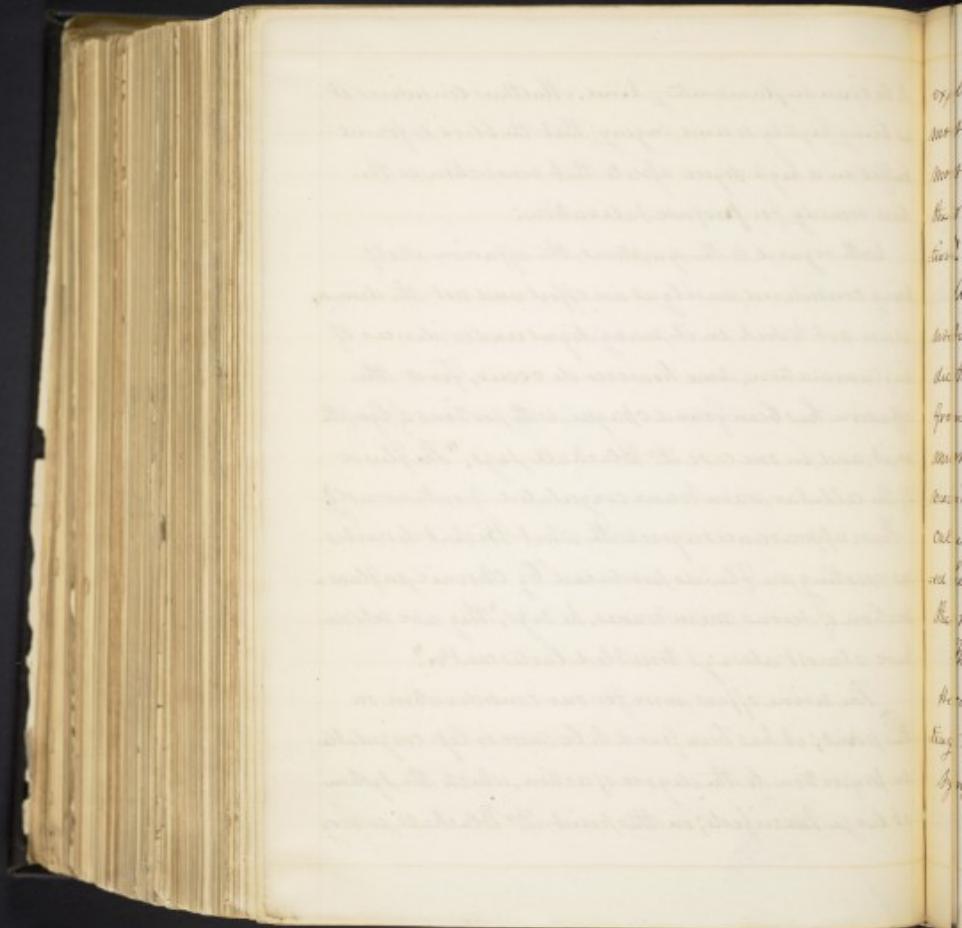
Another cause, is the abuse of mercury, this medicine when injudiciously exhibited, we know to excite an action injurious to health, and this action appears



to be of an inflammatory kind, Mather considers it  
as being highly so and saying, that the blood is found  
turbid in a high degree asserts that venesection is the  
best remedy for profuse salivation:

With regard to the symptoms, the effusion itself  
being considered, merely as an effect and not the disease,  
we are not to seek in it many signs and evidences of  
inflammation, some however do occur, first the  
effusion has been found opaque, with portions of lymph  
in it, and in one case Dr Blackall says, "The fluid  
of the cellular membrane coagulated spontaneously."  
These appearances agree with what Bichat describes  
as existing in fluids produced by chronic inflam-  
mation of serous membranes, he says, "They are seldom  
pure almost always troubled lactescent &c."

The urine offers more for our consideration on  
this point; it has been found to be more or less coagulable  
in proportion to the degree of action, which the system  
at large manifests; on this point Dr Blackall is very

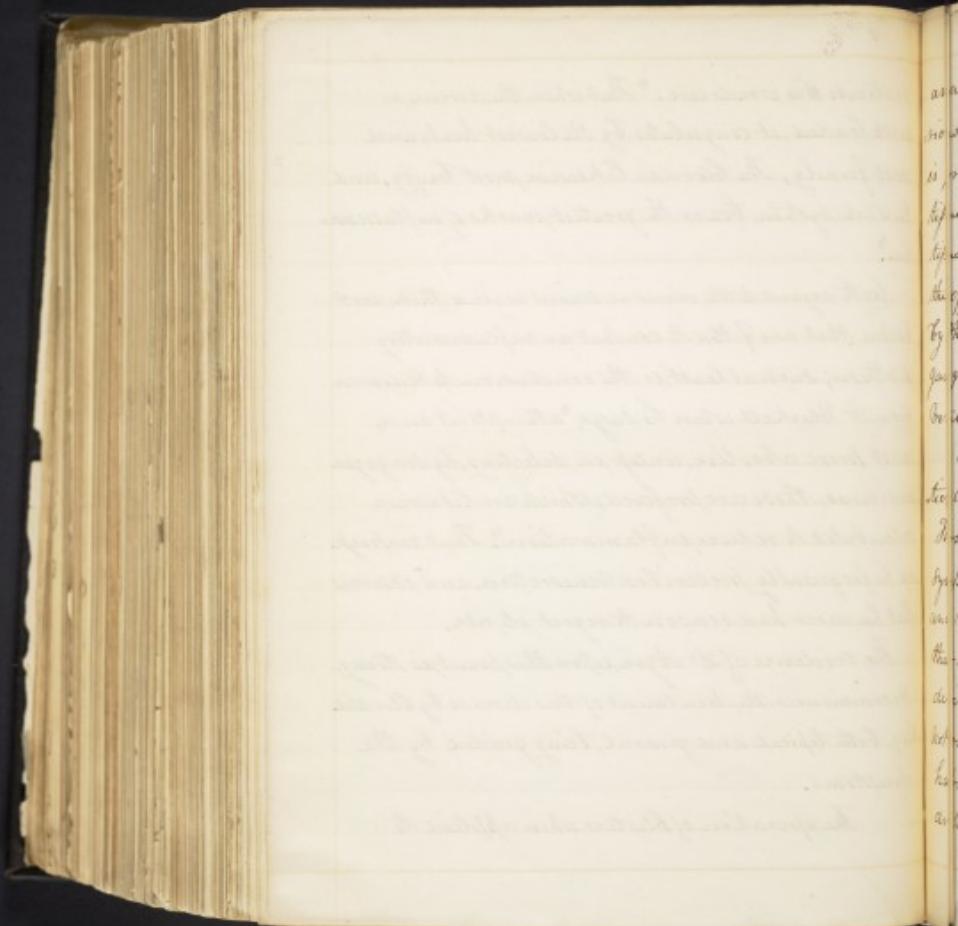


explicit: his words are, "That when the urine is most loaded, it coagulates by the lowest heat, and most firmly, The blood is likewise, most tarry, and the whole system bears the greatest marks of inflammation!"

With regard to the remedial means we find those most useful that are fitted to combat an inflammatory disorder; such at least is the conclusion to be drawn from Dr Blackall when he says, "Attempts at cure must prove abortive, unless in selecting hydrogogue medicines, those are preferred, which are likewise calculated to reduce inflammation". Thus it appears he frequently prescribed venesection, and observes that he never had reason to regret its use.

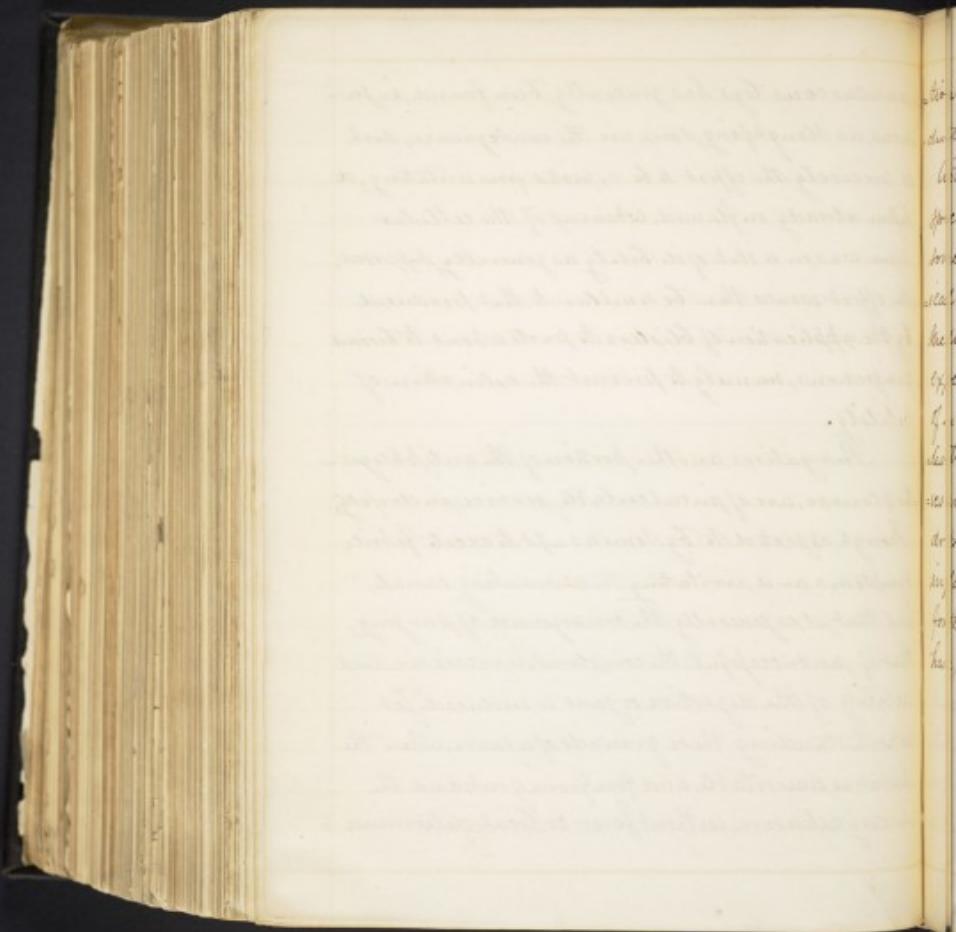
The evidence of Dr Ayr, upon this point, is strong; He commences the treatment of this disease by bloodletting, both topical and general, being guided by the symptoms.

The operation of blisters when applied to



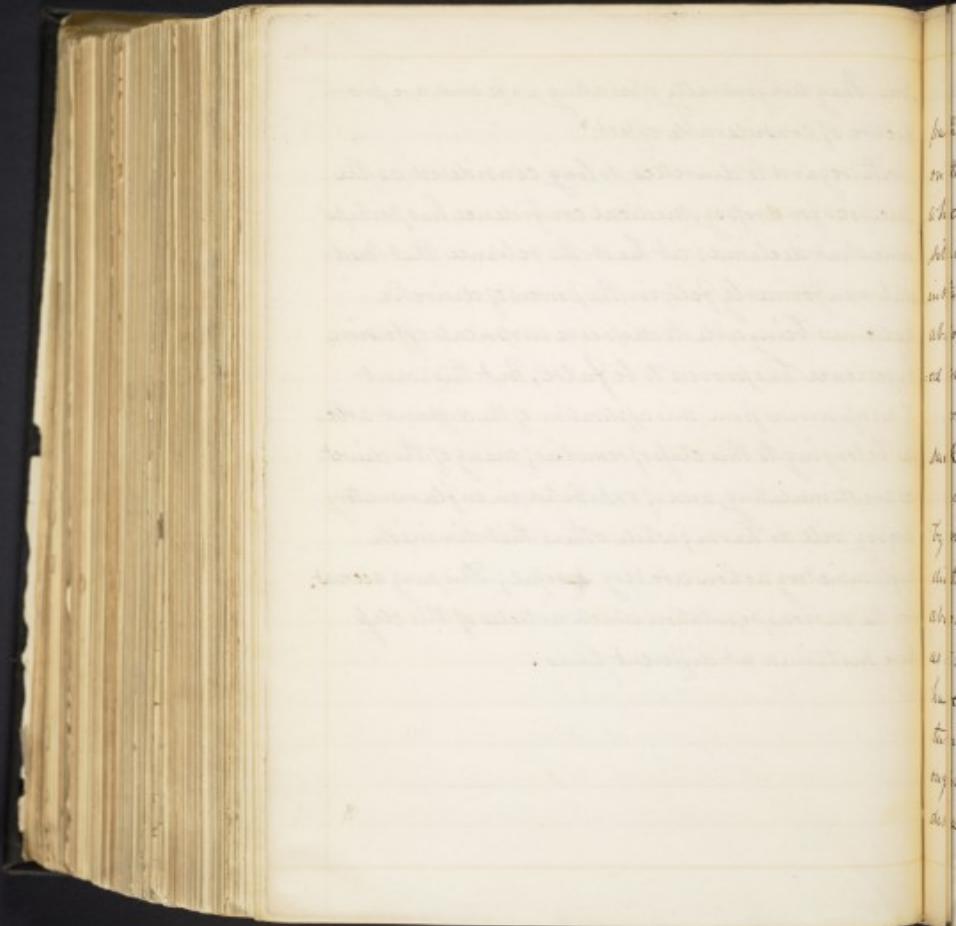
anasarcaous legs has generally been found injurious, as sloughing sores are the consequence, such is precisely the effect to be expected from irritating a tissue already inflamed. Whereas if the cellular tissue was in a state of debility as generally supposed, the effect would then be similar to that produced by the application of blisters to parts about to become gangrenous, namely to prevent the extinction of vitality.

Purgatives another portion of the antiphlogistic course, are of incalculable service in dropsy. Though objected to by some as apt to excite febrile symptoms and irritating the alimentary canal, and that it is generally the consequence of purging, that if unsuccessful, the complaint is increased, and debility of the digestive organs induced. Yet notwithstanding these grounds of alarm, when the habit is unirritable and free from gout, and the dropsy expansive, without fever or local determina-



tion. They are generally operating safe and are productive of considerable effect."

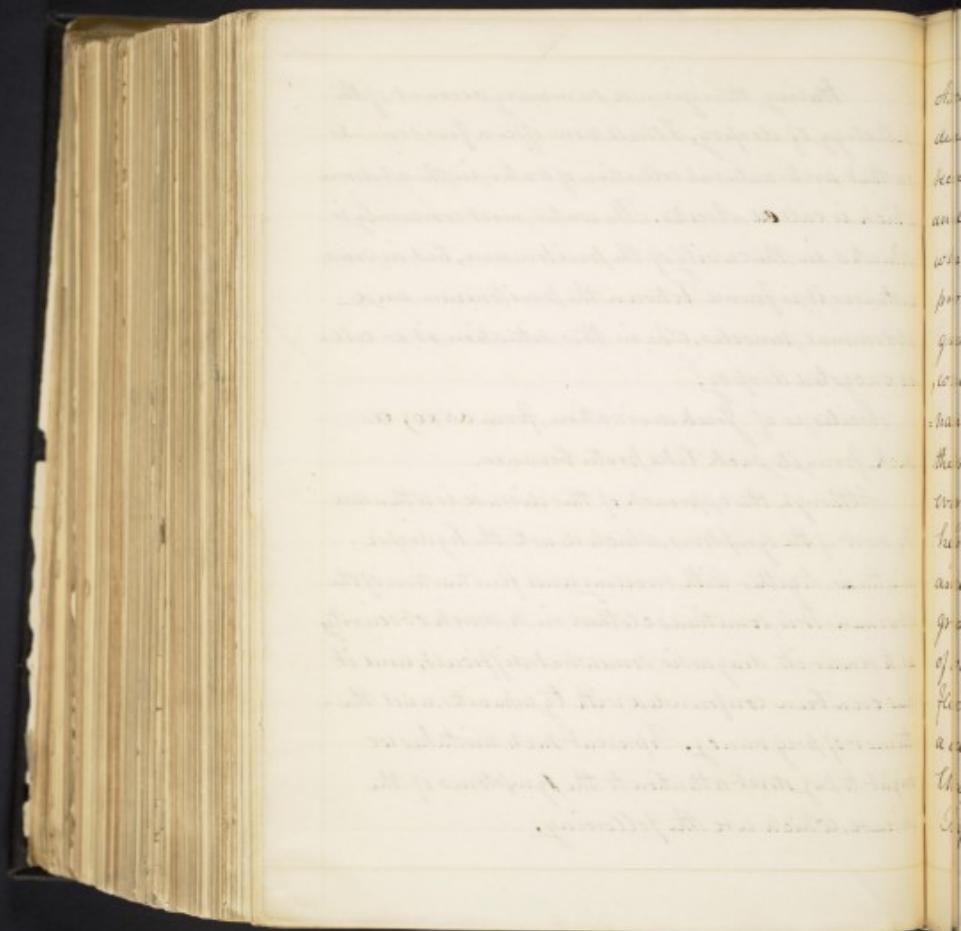
With regard to diuretics, so long considered as the specifics for dropsy, medical confidence has perhaps somewhat declined; at least the reliance that medical men formerly felt, in the powers of diuretic medicines being able to disperse abdominal effusion, experience has proved to be false. But this want of success arises from misapplication of the different articles belonging to this class of remedies; many of the diuretics are stimulating, and if exhibited in inflammatory dropsy will do harm; while others that diminish inflammatory action are very useful; This may account for the various reputation which articles of this class have sustained at different times.



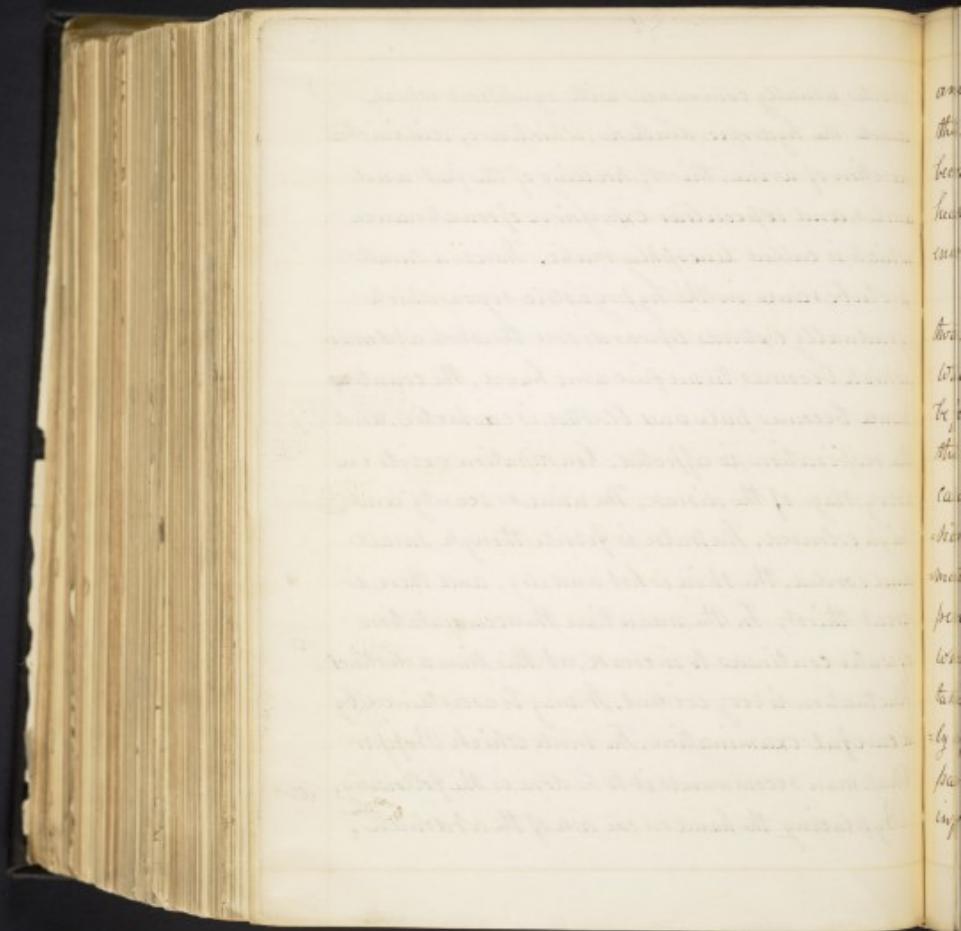
Having thus given a summary account of the pathology of dropsy, I shall now offer a few remarks on that pathological collection of water in the abdomen which is called Ascites. The water most commonly is situated in the cavity of the peritoneum, but in some instances it is found between the peritoneum and abdominal muscles, when in this situation it is called encysted dropsy.

Ascites is of Greek derivation, from ἄστος a sack, from its sack-like protuberance.

Although the approach of this disease is attended by most of the symptoms, which denote the hydroptic diathesis, together with swelling and fluctuation of the abdomen. It is sometimes cloathed in so much obscurity as to render its diagnosis somewhat difficult, and it has even been confounded with tympanites, and the tumor of pregnancy. To prevent such mistakes we ought to pay strict attention to the symptoms of the disease, which are the following.

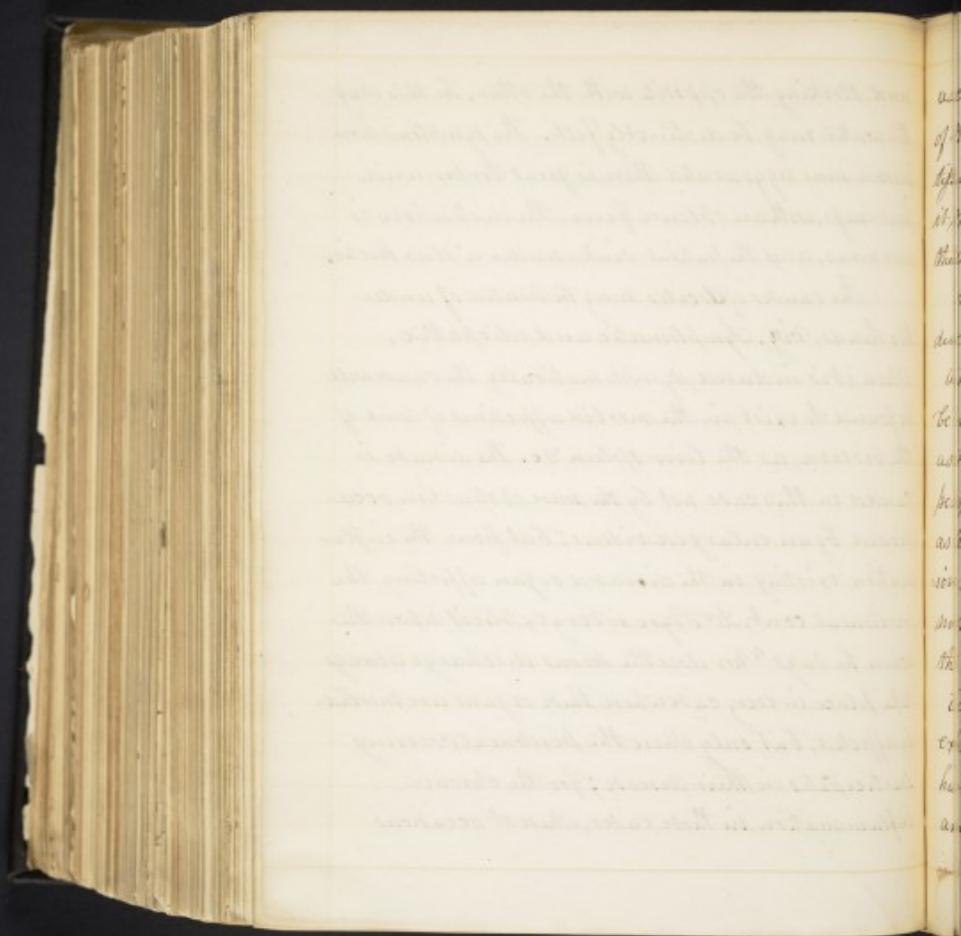


ascites usually commences with symptoms which denote the hydroscopic diathesis, which are, diminished excretion of urine, thirst, swelling of the feet and ankles, and a peculiar expression of countenance which is called leucophlegmatic. There is a small protuberance in the hypogastric region which gradually extends upwards over the whole abdomen, which becomes tumefied and hard, the countenance becomes pale and bloated, is cachectic, and the respiration is affected. Constipation exists in every stage of the disease. The urine is scanty and high coloured. The pulse is feeble though small and coreded, the skin is hot and dry, and there is great thirst. In the mean time the accumulation of water continues to increase, at this time a distinct fluctuation is very evident. It may be ascertained by a careful examination. The mode which Professor Chapman recommends it to be done is the following. By placing the hand on one side of the abdomen,



and striking the opposite with the other, In this way  
the water may be distinctly felt. The symptoms now  
become more aggravated there is great torpor and  
heaviness, with an obscure fever, the distension is  
in enormous, and the patient sinks under a slow hectic.

The causes of Ascites may be treated of under  
two heads, viz. Symptomatic and idiopathic,  
When it is induced symptomatically the cause will  
be found to exist in the morbid affections of some of  
the viscera, as the Liver Spleen &c. The disease is  
caused in this case not by the mere obstruction occa-  
-sioned by an enlarged viscous, but from the inflam-  
-mation existing in the diseased organ affecting the  
peritoneal coat. Dr. Tyre is very explicit upon this  
when he says "Nor does the serous discharge always  
take place in every case where these organs are morbidly  
affected, but only where the peritoneal covering  
participates in their disease; for the chronic  
inflammation in those cases, where it occasions

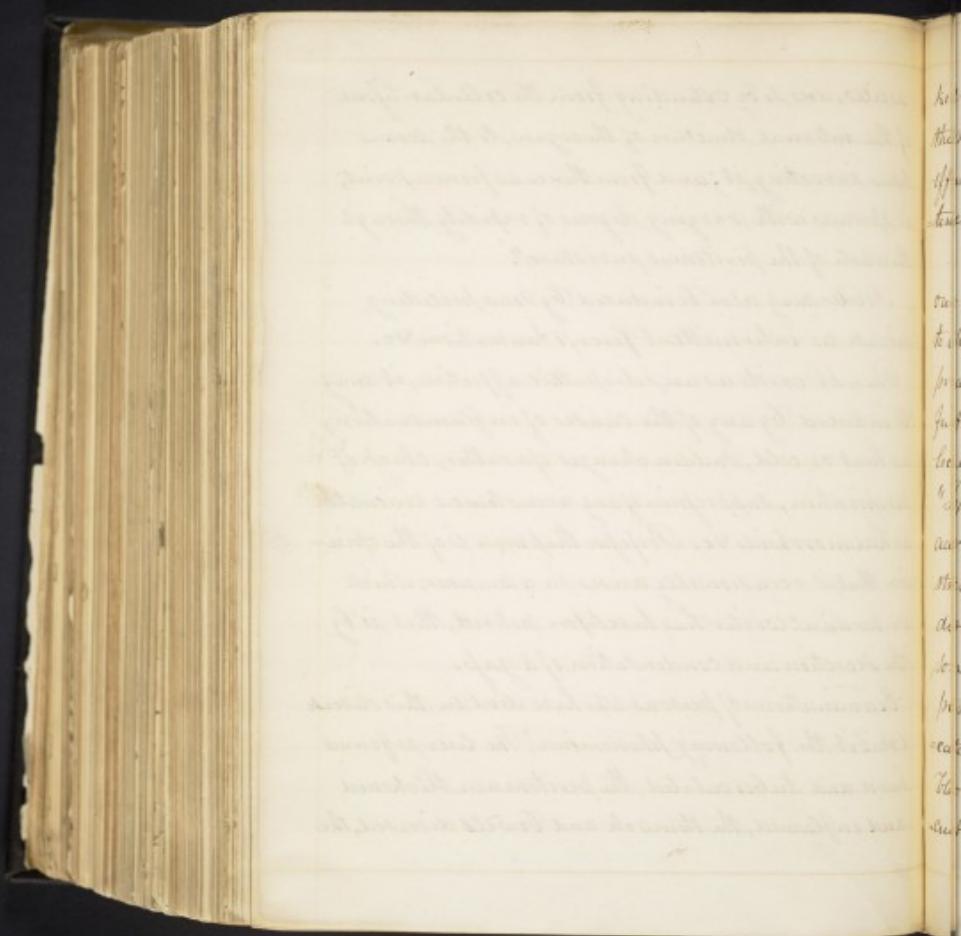


vesicles, does so by extending from the cellular tissue  
of the internal structure of the organ, to the serous  
space investing it; and from thence as from a point,  
it spreads with varying degrees of rapidity through  
the whole of the peritoneal surface?

It may also be induced by some preceding  
disease as intermittent fever, rheumatism &c.

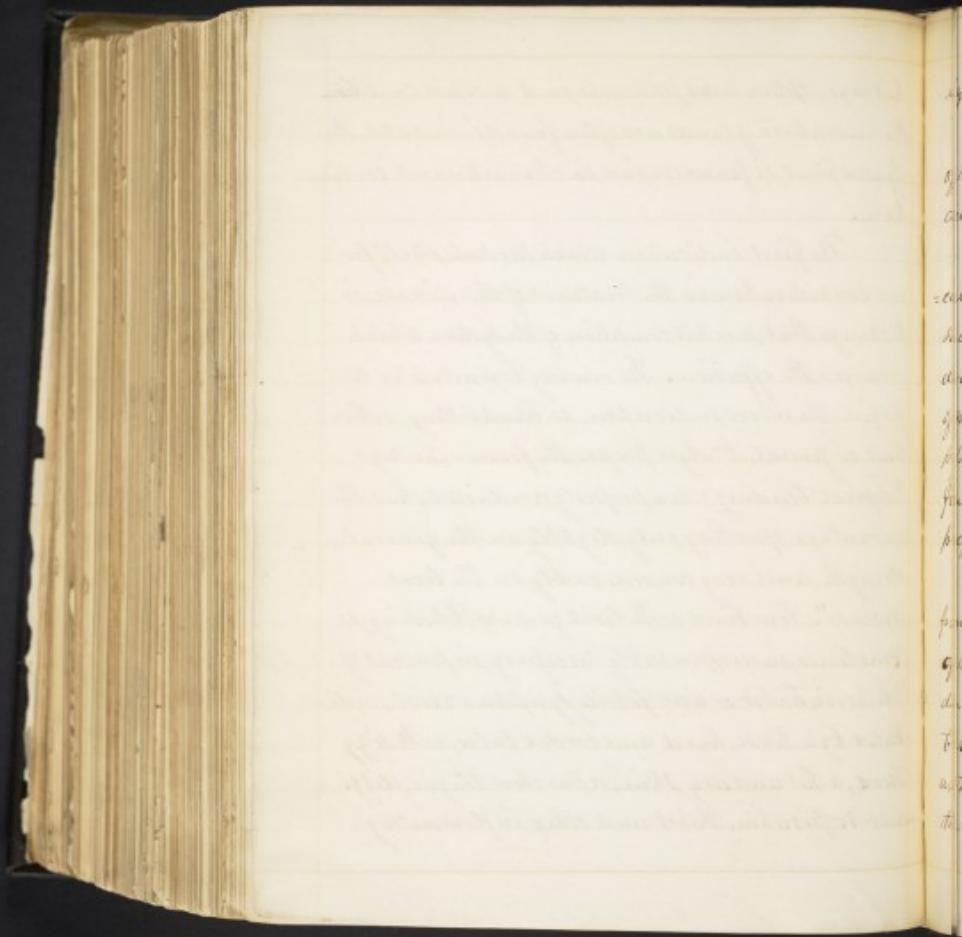
When it exists as an idiopathic affection, it may  
be induced by any of the causes of inflammation,  
as heat or cold, sudden changes of weather, check of  
perspiration, suppuration of any accustomed evacuation  
as haemorrhoids &c. Professor Thapman is of the opin-  
ion that it occasionally arises, in a manner, which  
no medical writer has heretofore noticed, that is by  
the desecration and condensation of a gap.

Examinations of persons who have died in this disease  
exhibit the following phenomena. The liver is found  
hard and tuberculated, the peritoneum thickened  
and inflamed, the stomach and bowels diseased, the



kidneys, spleen and pancreas in a morbid condition,  
the mesenteric glands are often found indurated, the  
effused fluid is found variegated in character and consist-  
tance.

The first indication which presents itself for  
our consideration in the treatment of this disease, is  
to change that morbid condition of the system which  
produces the effusion. The remedy best adapted to  
fulfill the above indication, is bloodletting, either  
local or general, Dr. Atye prefers the former, he says  
"Topical bleeding when properly conducted, has the  
advantage of acting only slightly on the general  
strength, and very considerably on the local  
disease". Combined with local general bleeding is  
sometimes indispensably necessary in severies of  
plethoraic habit or where febrile symptoms exist, indi-  
cated by a tense, hard and corded pulse, with seedy  
blood, a hot and dry skin, a parched tongue, diffi-  
cult respiration, thirst and other inflammatory

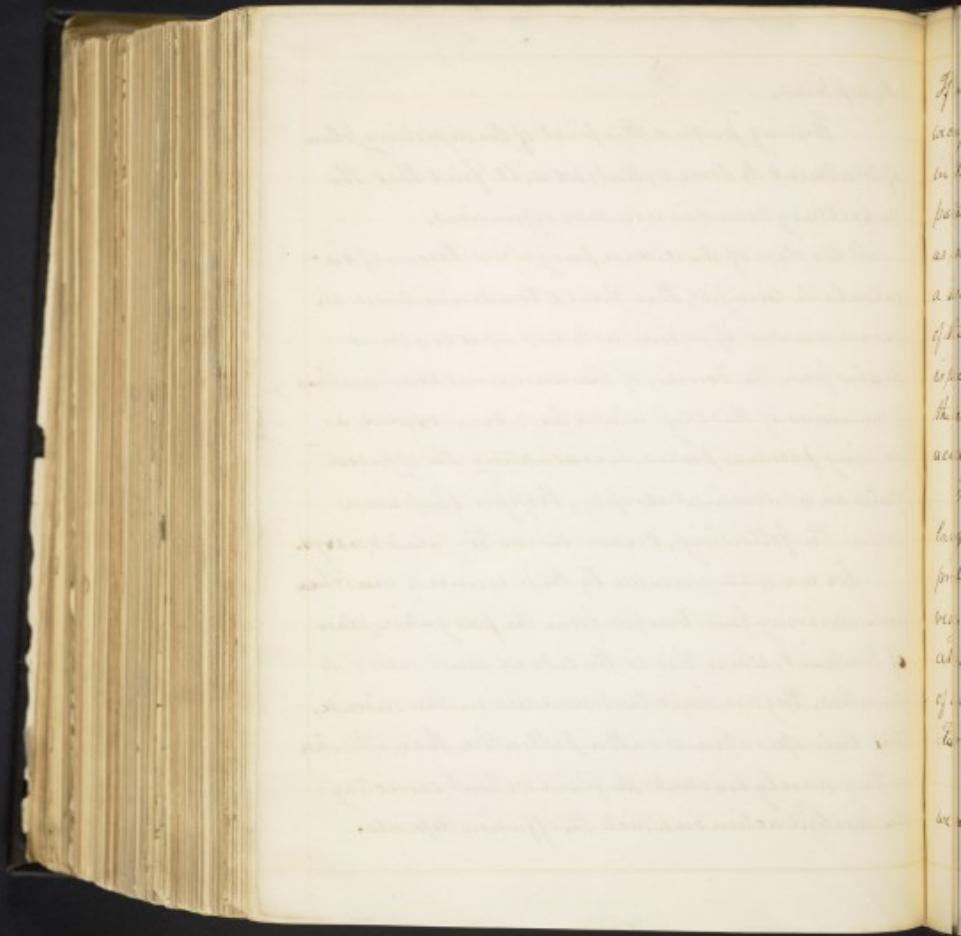


Symptoms.

Having pursued this part of the depleting plan of treatment to some extent, we will find that the auxiliary remedies are more efficacious.

At this stage of the disease purgatives become of incalculable benefit, they should be administered in such a manner if possible, as to keep up a constant drain from the bowels, of the numerous combinations of medicines of this class, which have been tested, as possessing peculiar powers in evacuating the effused fluid in abdominal dropsy, Professor Chapman prefers the following, Cinnamon tincture & Jalap 8oz & 9oz.

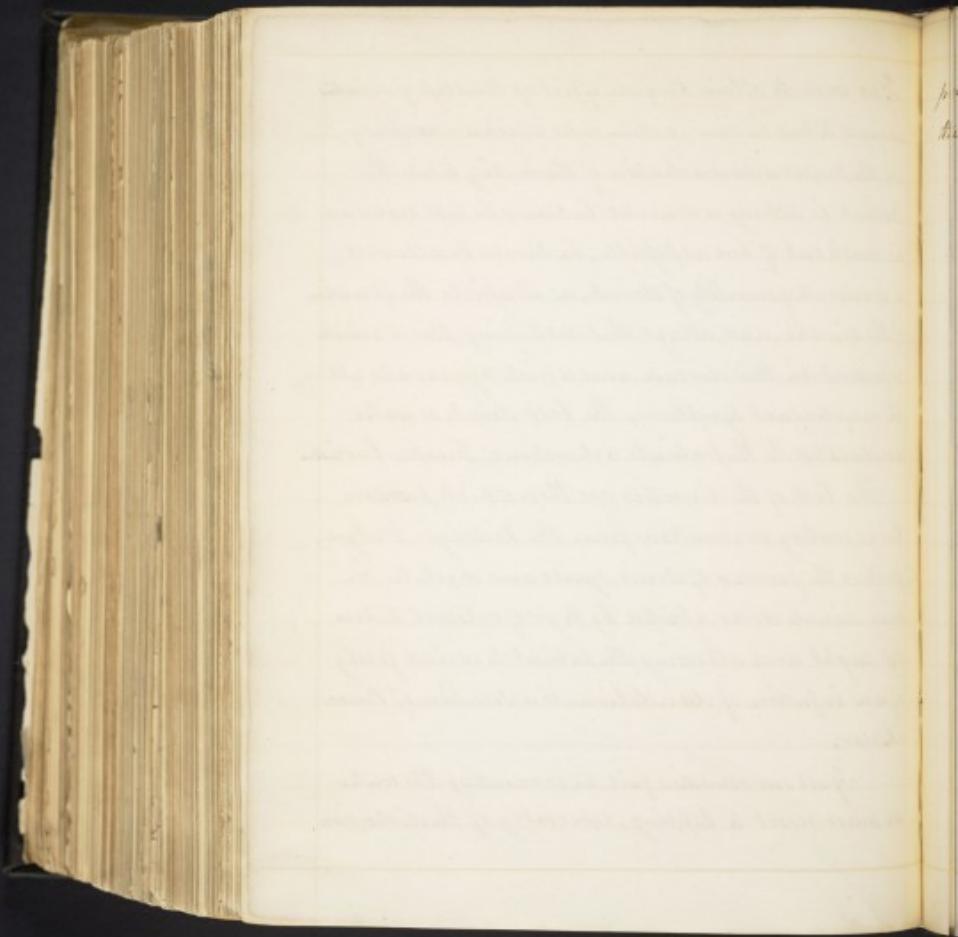
We are often presented by the presence of diarrhoea from deriving full benefit from the purgative plan of treatment, when this is the case we must resort to diuretics, they are important remedies in this disease, but their operation is rather palliative than otherwise, as they merely evacuate the fluid without correcting the morbid action on which the effusion depends.



If we wish to obtain the full effect of this class of remedies we ought to keep in view, certain rules which are necessary in the proper administration of them. viz. While the patient is taking a diuretic he should be kept cool and as much out of bed as possible, he should be allowed a moderate quantity of drink, as it assists the operation of the diuretic, and allays that distressing thirst which is present in this disease, and which aggravates all the unpleasant symptoms. The best drink is water acidulated to the patients, a decoction of Juniper berries.

The best of the diuretics are those which produce large watery evacuations from the kidneys. Dr. Syre prefers the powder of dried Senna and digitalis, in very minute doses, assisted by 10 gr. of calomel taken at night and allowing the patient to drink freely of an infusion of old molasses, or a solution of cream of tartar.

If all our remedies fail in evacuating the water we must resort to tapping, especially if the distension



produces much pain, as great relief is obtained and  
the system becomes more susceptible to our remedies.

